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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/582,771	08/29/2000	Norbert W. Quast	DB000852-000	2847

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EXAMINER

HOANG, PHUONG N

ART UNIT	PAPER NUMBER
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2194

DATE MAILED: 06/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/582,771

Applicant(s)

QUAST, NORBERT W.

Examiner

Phuong N. Hoang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 February 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 - 16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1 – 16 are pending for examination.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. **Claims 1, 3 – 6, and 8 – 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Purtilo "Improving Module reuse by interface adaptation" p. 208 – 217 in view of Srivastava, US patent no. 6,473,768.**

4. Purtilo and Srivastava references were cited in the last office action.

5. **As to claim 1**, Purtilo teaches a program flow method in a program component system, comprising a running time system (system can create an execution-time module, p. 208 col. 2 paragraph 1) and several components (components, p. 210 col. 2 paragraph 3), each having one program portion, the method comprising the steps of:

a) acquiring for the first component (calling module, p. 210 paragraph 4) by means of the running time system (runtime, page 208, col. 1 last paragraph), data from a second component of the several components, wherein the data to be acquired within the second component is selected according to a definition of the first component (the source of data will be as the parameter list definition, section 2.1);

b) disposing from the first component, by means of the running time system, of data of the first component into the second component (called module, p. 210 paragraph 1), wherein a target to which the data is to be deposited with the second component is selected according to a definition of the first component (parameter list describes the number, order, and type of arguments that the calling module is transmitting and one specifies the coercion of data objects with a function call, section 2.1);

Purtilo teaches first and second components programmer-defined interfaces.

However, Purtilo does not explicitly teach first and second components without any need for programmer-defined interfaces.

Srivastava teaches components calling without any need for programmer-defined interfaces (add new components with interfaces at runtime, see abstract and col. 3 lines 55 – col. 4 lines 19, col. 5 lines 15 – 67, and col. 7 lines 30 – col. 8 lines 50).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Purtilo and Srivastava's because Srivastava's creating new component with interfaces at runtime would provide the ability

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to handle more interfaces or components to the calling or called components without pre-defined interfaces, and so the system can handle more flexible data requests.

6. **As to claim 3 and 4**, Srivastava teaches the step of acquiring and/or the disposing is carried out without the cooperation of the second component when the new interface is not needed (no need to add new components and interfaces, col. 3 lines 55 – col. 4 lines 19, col. 5 lines 15 – 67, and col. 7 lines 30 – col. 8 lines 50).

7. **As to claim 5**, Srivastava teaches the step of data is kept in a region (col. 5 lines 15 - 25).

8. **As to claims 6 and 8**, Purito teaches the steps of directly access data region local and /or non-persistent data (page 209, col. 2 last paragraph).

9. **As to claim 9**, Purtilo teaches docking point (annotated actual parameter list is provided, p. 210 col. 2 paragraph 5).

10. **As to claim 10**, Purtilo teaches the steps of:

- a) docking points (annotated actual parameter list is provided, p. 210 col. 2 paragraph 5) corresponding to an inheritance parameter;
- b) modifying each of the several components where at least one docking point was found by entering call information (the annotated actual parameter list is

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provided so that the programmer can pick and choose, p. 210 col. 1 section 2.1 and col. 2 paragraph 5) at each docking point found, the call information indicating the further component (the call information indicating the further component after the programmer pick).

Purtillo does not explicitly teach inheritance parameter determined by a definition of the further component, and wherein the expansion of the program component system is completed without any need for programmer-defined expansion interfaces in the several components.

However, Purtillo teaches the annotated parameter list having components describing the number, order, and type of argument (page. 10 section 2.1).

Srivastava teaches inheritances (Java provides inheritances, abstract), and the expansion of the program component system is completed without any need for programmer-defined expansion interfaces in the several components (add new components with new interfaces at runtime, abstract and col.3 lines 55 – col. 4 lines 19, col. 5 lines 15 – 67, and col. 7 lines 30 – col. 8 lines 50).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Purtillo and Srivastava's because Srivastava's creating new components and interfaces at runtime would provide the ability to handle more interfaces or components to the calling or called components without pre-defined interfaces, and so the system can handle more flexible data requests.

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11. **As to claim 11**, Purtilo teaches all interaction interfaces (actual interface pattern, p. 210 col. 2 paragraph 5).

12. **As to claim 12**, Purtilo teaches the steps of data fields are predefined as potential docking points (parameter list are predefined as can be annotated, p. 210 col. 2 paragraph 5).

13. **As to claim 13**, Purtilo teaches entering said call information into the docking point (the annotated actual parameter is used for entering information, p. 210 col. 2 paragraph 5).

14. **As to claims 14 and 15**, Srivastava teaches the step of generating at least one binary object (generate Java byte-code objects, col. 1 lines 55 – 65 and col. 2 lines 37 - 45) from the definition of the further component.

15. **Claims 2 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Purtilo "Improving Module reuse by interface adaptation" p. 208 – 217 in view of Srivastava, US patent no. 6,473,768, and further in view of Craze US patent no. 5,809,564.**

16. Craze was cited in the last office action.

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17. **As to claim 2**, Purtilo and Srivastava do not teach the steps of the data transmitted during the data acquisition are transferred from a memory image portion of the second component into a transfer data region of the first component.

Craze teaches the data transmitted during the data acquisition are transferred from a memory image portion (the return address identifies the location in the application heap where the CPU should continue processing when the called function returns to the calling function, col. 4 lines 1 – 20) of the second component into a transfer data region of the first component.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Purtilo, Srivastava, and Craze's because Craze's transferring data between heap in the stack without moving data out of the region would speeds up the process and quickly provide the data as requested.

18. **As to claim 7**, Craze teaches a waiting list (stack, col. 4 lines 1 – 15).

19. **Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Purtilo "Improving Module resue by interface adaptation" p. 208 – 217 in view of Srivastava, US patent no. 6,473,768, and further in view of Nilsen, US patent no. 6,438,573.**

20. Nilsen reference was cited in the last office action.

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21. **As to claim 16**, Purtilo and Srivastava do not explicitly teach the step of while generating each binary object, the memory allocation is considered in the one component of the program component system.

Nilsen teaches the step of generating each binary object, the memory allocation (allocatableBytes(), col. 21 lines 10 – col. 12 lines 18) is considered in the one component of the program component system.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Purtilo, Srivastava, and Nilsen's system because Nilsen's allocating memory would be necessary to provide memory as needed to run the new interfaces.

Response to Arguments

22. Applicant's arguments filed 2/24/05 have been fully considered but they are not persuasive.

23. Applicant argued in substance that

(1) Purito and/or Srivastava do not teach the amended limitations of acquiring for the first (called) component data from the second component (calling), and wherein the source of the data to be acquired within the second component is selected according to a definition of the first component, and wherein a target to which the data is

to be deposited with the second component is selected according to a definition of the first component as to claim 1.

(2) Examiner has misconstrued the teaching of Purito for the limitation "modifying each of the several components where at least one docking point was found by entering call information", and Purito teaches "the central idea iswithout changing the source code of the modules involved" as to claim 10.

24. Examiner respectfully disagrees with applicant's remark

As to point 1, Applicant did not clearly claim first component is called component, and second component is calling component. Therefore, it can be read either way.

Purito teaches the amended limitations wherein the source of the data to be acquired within the second component is selected according to a definition of the first component (the source of data will be as the parameter list definition, section 2.1), and wherein a target to which the data is to be deposited with the second component is selected according to a definition of the first component (parameter list describes the number, order, and type of arguments that the calling module is transmitting and one specifies the coercion of data objects with a function call, section 2.1).

As to point 2, Purito teaches modifying each of the several components where at least one docking point was found by entering call information (the annotated actual parameter list is provided so that the programmer can pick and choose, p. 210 col. 1

section 2.1 and col. 2 paragraph 5). Applicant did not claim modifying source code of the program. Modifying component does not only mean modifying source code.

Conclusion

25. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.


26. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuong N. Hoang whose telephone number is (571)272-3763. The examiner can normally be reached on Monday - Friday 9:00 am to 5:30 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571)272-3756. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ph
June 3, 2005


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